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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,485	03/12/2001	August Sprock	HM-394PCT	5638

7590 12/03/2001  
Friedrich Kueffner  
Suite 1921  
342 Madison Avenue  
New York, NY 10173

EXAMINER

YEE, DEBORAH

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 12/03/2001

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant No.

09/744,485

Applicant(s)

SPROCK, AUGUST

Examiner

Deborah Yee

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities: Page 2 of the specification, line 2 of the 3<sup>rd</sup> paragraph discloses "hasp temperature".

Appropriate correction is required.

Claim 1 is objected to because of the following informalities: Grammatical error in claim 1, step c) which recites "before begin of the second cooling...". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese patent abstract 57-104650A which was submitted by applicant in IDS filed 1-24-01.

The English abstract of JP'650A discloses a method for producing a steel having ferrite and 1 to 30% martensite by a 2-stage cooling step of 1<sup>st</sup> cooling at less than 30C/s followed by 2<sup>nd</sup> cooling at more than 30C/s, which meets the recited claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 747495, which was submitted by applicant in IDS 1-24-01.

EP'495 discloses a method for producing a steel with a 2-phase microstructure of at least 75% ferrite and at least 10% martensite comprising the steps of subjecting a hot rolled steel sheet to cooling at 2 to 15C/s (within applicant's claimed 1<sup>st</sup> stage cooling rate of less than 30K/s) for a period of 8 to 40 seconds to a temperature between Ar1 and 730C and thereafter a second cooling stage with a cooling rate of 20 to 150C /s (overlaps with applicant's claimed 2<sup>nd</sup> stage cooling rate of more than 30K/s). Note that overlapping temperature ranges establishes a prima facie case of obviousness. Moreover, EP'495 teaches a steel having a dual phase microstructure which meets the recited claims.

Claims <sup>4</sup>~~2~~ and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese abstract 57-104650A or EP747495, which was submitted by applicant in IDS 1-24-01 in view of Umeno et al (US Patent 4,591,133) or Plata et al. (US Patent 5,382,306) .

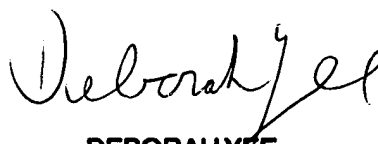
In regard to claims 3 and 4, EP'495 and JP'650A do not specifically disclose cooling device, but a cooling device would be implicit in the method claims. Note in order to perform the method of cooling, a cooling device having 2 cooling stages has to be implemented. Cooling by a series of cooling spray or by one adjustable cooling spray are well known in the art, as evident by secondary references and hence would be a matter of choice well within the skill of the artisan and productive of no new and unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy  
November 28, 2001

  
**DEBORAH YEE**  
**PRIMARY EXAMINER**